VITAE® 40

TRANSPORT AND EMERGENCY VENTILATOR

Advanced ventilation in the palm of your hand

HERSILL
Medical Devices
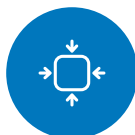
FROM THE IDEA
TO THE PATIENT

VITAE® 40

Polyvalence
that saves lives

From CPR on the field
to the most complex transport

ERGONOMIC

All the control in the
palm of your hand

COMPACT

227 x 125 x 65 mm

LIGHT

1.4 kg
(with batteries)

Ventilation and monitoring at ICU level

Ventilation

VOLUME CONTROLLED	PRESSURE CONTROLLED
Controlled ventilation (VCV)	Controlled ventilation (PCV)
Assisted/Controlled (VC-A/C)	Assisted/Controlled (PC-A/C)
Synchronized Intermittent (VC-SIMV)	Synchronized Intermittent (PC-SIMV)
Synchronized Intermittent + Pressure Support (VC-SIMV-PS)	Synchronized Intermittent + Pressure Support (BIPAP)
Adaptive Pressure with Volume Guaranteed Ventilation (APVG) APVG + A/C APVG + SIMV APVG + SIMV + PS	Pressure Support Ventilation (PSV)
	Continuous Positive Airway Pressure (CPAP)
	Compensation for leakage Non-Invasive Ventilation (NIV)

Monitoring

FiO_2 estimated
Volumetric capnography (main stream, Masimo™)
Real-time ventilation curves
Loops and trends

VITAE® 40

Certified for air ambulance

Assistants during CPR

Pressure-controlled ventilation with pre-configured settings and restrictions (CPR-PCV) during continuous cardiac massage

Assistants during CPR 30/2 or 15/2

CPR Semi-Auto:	CPR Auto:	CPR Auto-Compressor:
Manual trigger of 2 breaths at the end of each massage cycle. Audible and visible metronome.	Automatic trigger of 2 breaths at the end of each massage cycle Audible and visible metronome.	Automatic trigger 1 of breath at the end of each massage cycle in a thoracic compressor

According to regulations:

American Heart Association.

EUROPEAN RESUSCITATION COUNCIL

O₂ Conventional and high flow oxygen therapy (up to 80 L/min)

Connectivity (Wifi and Bluetooth)

Standard: RTCA DO-160G / EUROCAE ED-14G

VITAE® 40

TECHNICAL DATASHEET

MONITORIZATION:

Ventilation curves:
Real time: Pressure/time, Flow/time, CO_2/time[1]
Loops: Volume-Flow, Pressure-Volume, Flow-Pressure, VCO_2 ($SBCO_2$)[2]

Ventilation trends:
Pip, VMe, Cdyn, $EtCO_2$[1], $V'CO_2$[2], V'alv[2]

Ventilation parameters:
Pip, VTe, F, Fspont, VMe, VTi, $InCO_2$, $EtCO_2$, Pplat, Pavg, Cdyn, O_2 Consumption, Leakage Index (VTi vs VTe), Timer

Volumetric capnography parameters[2]:
$ViCO_2$, $VeCO_2$, VCO_2, $V'CO_2$, VDaw, VDalv, VDphys, VD/VT, $PACO_2$, $FECO_2$, $PECO_2$, VD/VT (Bohr), Valv, V'alv

FiO_2 (estimated)

Alarms: Specific interface with dedicated buttons on the touchpad

Battery level

VENTILATION ADJUSTMENTS:

- Tidal volume: 5 to 3000 (50 to 1500 mL in VCV modes)
- Ventilation frequency: 3 to 80/min
- I:E relation: 5:1 to 1:8
- PEEP: 0 to 30 mbar
- Inspiratory pressure: 5 to 60 mbar
- Maximum pressure: 5 to 60 mbar
- Pressure support: 5 to 60 mbar
- FiO_2: 40 to 100% O_2 (in 10% increments)
- Trigger: 1 to 15 L/min
- Inspiratory time: 0.1 to 16 s
- Inspiratory pause: 0 to 60%
- Ramp: 0.1 to 2.0 s
- Non-invasive ventilation (NIV): No / Yes

Inspiratory flow:	max. 120 L/min
Breathing circuit options:	Reusable, Disposable, Adult and Paediatric
Power supply:	10 - 30 V_{DC} Optional: AC/DC (100 - 240 V / 50 - 60 Hz)
Consumption:	max. (battery charge)= 1.3 A (typical= 0.6 A (@ 12 V_{DC})
Gas supply:	O_2: 2.7 - 6.9 bar (internal gas consumption < 0.1 L/min)
Battery autonomy:	Up to 12 hours (5 h internal bat.[*] + 7 h Pluscel bat[3])
Display:	TFT colour 4,3" (95 x 54 mm), with night vision options
Communications[3]:	Bluetooth, Wifi[4]
Enclosure protection:	IP44
Dimensions and Weight:	227 x 125 x 65 mm; 1.4 Kg (including battery)
Fresh air inlet filter:	0.65 μm (> 98% at 95 L/min)
Overpressure limiting device:	105 hPa (105 cmH_2O)
Operating conditions:	-20 to +50 ℃, 0 – 95% humidity, up to 4000 m altitude (built-in thermometer and altimeter for corrections)
Mechanical strength:	30g (normative vibrations and impact for helicopters, airplanes and ambulances)
EMC protection:	Radiated and conducted tests of helicopters, airplanes and ambulances
Airworthiness:	In accordance with IEC, ISO, EN and RTCA D0-160G standards
Lithium-free battery[*]:	Internal NiMH battery, without reactive compounds, compliance with new air transport regulations

Designed according to the new ISO standard 80 601-2-84:2018 for emergency and transport ventilator.

OPTIONS
(1) Capnography (Masimo™ main stream)
(2) Volumetric capnography
(3) Pluscel battery (Lithium)
(4) Bluetooth and Wifi

VITAE®40 ACCESSORIES/ CONSUMABLES/ SPARES

01_ BASIC CONFIGURATION

VITAE®40 _____ **5200800**

Standard ventilation modes: VCV, VCV-ACV, VC-SIMV, PCV, PCV-ACV, PC-SIMV, Manual. CPR modes (CPR assistants and CPV ventilation), Oxygen therapy (high flow), Patient circuit VITAE®40 – disposable adult, Ambulance supply cable, Batteries pack 6 x NiMH rechargeable, Oxygen therapy adapter (ref. 0220011)

Power hose O_2 (2m O_2 DISS) (*) _____ 410005X

02_ OPTIONS

Advanced ventilation modes (PSV + APVG) _____ 4200803
Advanced volumetric capnography _____ 4200804
Bluetooth and/or WiFi _____ 4200962
AC-DC charger (*) _____ 3200884

03_ ACCESSORIES

External battery (Li-ion) _____ 4200981
Test Lung (1L) _____ 0142020
Oxygen regulator with 1m hose (P-300 P40 – 1m – DISS) (*) _____ 55014XX

Transport case
VITAE®40
Ref.: 3200990

Transport bag for
cylinder 2/3 L (PAX)
Ref.: 4200996

Backpack transport
Oxy Compact for
VITAE®40
Ref.: 4200990

Capnography (CO_2 analyser
main-stream): IRMA CO_2,
airway adapter for IRMA and
CO_2 monitoring
Ref.: 4200802

Wall support XG (30g)
Ref.: 4320301

Steerable XG clamp
(O°-45°-90°) VITAE®40
Ref.: 4200972

Cart for VITAE®40
+ Cylinder up to 7L +
AC/DC + Accessories
Ref.: 4200860

Double distributor
DISS valve
Ref.: 4200980

MR850 Humidifier/
heater + temperature sensor
+ heating cable +
adapter to bar
Ref.: 4500540

Oxygen regulator
(P-300 P40 – With
quick-release
connection) (*)
Ref.: 5501XXX

(*) Consult with us all available options.
Manual and interface available in English, French and Spanish (other languages please check cavailability).

VITAE® 40 ACCESSORIES/ CONSUMABLES/ SPARES

04_ CONSUMABLES

Pack 10 Bacterial-viral filters (HMEF) – single use – paediatric _____ 4100501

Pack 10 Airway adapters for IRMA CO_2 - infant _____ 4100503

Patient circuit
VITAE®40 Reusable
adult
Ref.: 4200897

Patient circuit
VITAE®40 Reusable
paediatric
Ref.: 4200898

Patient circuit
VITAE®40 single use
adult
Ref.: 4200892

Patient circuit
VITAE®40 single use
paediatric
Ref.: 4200893

Pack 10 Bacterial-viral
filters (HMEF)
Disposable adult
Ref.: 4100500

Pack 10 Airway adapter
for IRMA CO_2
Adult/paediatric
Ref.: 4100502

Oxygen therapy
and capnography kit
Ref.: 4200811

Pack 10 NIV face mask
large
Ref.: 4200045

Pack 10 NIV face mask
medium
Ref.: 4200043

Pack 10 NIV face mask
small
Ref.: 4200041

Pack 10 high flow
nasal cannula large
Ref.: 4200044

Pack 10 high flow
nasal cannula medium
Ref.: 4200042

Pack 10 high flow
nasal cannula small
Ref.: 4200040

Pack 10 Optiflow circuit
kit for MR850
with humidification
chamber
Ref.: 0500544

05_ SPARES

Rechargeable NiMH battery _____ 3200851

Pack of 10 VITAE®40 air filters _____ 4200817

Ambulance supply cable _____ 3200885

HERSILL
Medical Devices

AS EASY TO USE
AS BREATHING

MANUFACTURERS
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CE

esq

IQNet
CERTIFIED
MANAGEMENT SYSTEM

ISO   9001: 2015
ISO 13485: 2016
ISO 14001: 2015